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ABSTRACT

This paper discusses accomplishments and problems in recent Cuban attempts to move secondary education into rural areas. Some of the theoretical implications of the Cuban educational reform model for other Latin American societies are examined. Prerevolutionary Cuban education was crucially deficient in its orientation to professional training and a near total rejection of practical, work-oriented skills required for national development. On taking power, Castro began a massive educational reform movement by instructing schools to mold the socialist "new man" dedicated to self-sacrifice and to the struggle against injustice and exploitation. The highest priority was placed on rural education and creating educational programs for urban youth which combined theoretical learning and actual work experience in agricultural work-study programs. Six years of primary schooling has been made available to almost all rural children. Two major problems in the new educational system are (1) that over half of the children in primary schools are grade repeaters and (2) that the majority of students, even though education is available to them, continue to drop out at an early age to work or to loaf. (Author/RM)

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PRECONDITIONS FOR SYSTEM-WIDE EDUCATIONAL REFORM: LEARNING FROM THE CUBAN EXPERIENCE

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What can we learn from Cuban efforts since 1959 to create a revolutionary educational system? By a revolutionary educational system, I mean the systematic use of all structured learning activities to take the lead in social reconstruction, to help achieve the three-core revolutionary goals of greater equality, national development, and the elimination of dependency.

As a student of Cuban efforts to turn their lovely island into one big school, as well as a first-hand observer of educational-reform efforts, I believe we can learn a good deal. The Cuban experience rather clearly indicates, for example, some sufficient, if not necessary, conditions for fundamental change both in the values and ideology shaping and directing education, and in the creation of new structures to teach and reward the new "good behaviors." Why, for instance, has Cuba so obviously succeeded in achieving the Alliance for Progress's educational goals for universal schooling, technical and vocational education, rural and agricultural education, while the Alliance has so notably failed?

In addition to its potential for illuminating the "under what conditions" questions of the theoreticians, i.e., the questions about relationships between national ideology, power and educational change potentials, Cuba's educational revolution presents as well a wealth of information, of case data on pedagogical innovations, on efforts to supplement the formal school system with non-formal, out-of-school learning opportunities in the workshop, the community, in the mass popular organizations that play such a key role in making the revolution a constant reality in most individuals' everyday experiences.

A third didactic potential might concern the problem of evaluation. That is, how are we to evaluate, to make a judgment about what the Cubans have sought to achieve in value and structural change and what they have in fact actually accomplished? Here we come up against two hard problems. One is the lack of empirical data. Although the Cubans have made available, especially through their UNESCO Association, a good deal of statistical

data on enrollments and the like, we know next to nothing from research in place about the effectiveness of their educational programs in changing behaviors. The few American scholars that visit Cuba soon understand that if they wish to return, and most do as they are building academic specializations--at least in part--on first-hand observation of the revolution, they must not criticize--even in a constructive way. Those academics on the other side who see the Cuban revolution as the devil's own work also have problems with objectivity and critical perspective. The fact is that Castro, as we shall note, has been the most outspoken critic of Cuban educational reforms, especially those seeking behavioral change, i.e., the creation of "el hombre nuevo," the selfless and productive new man.

The second dilemma for evaluators concerns criteria or standards for evaluation. Whose should they be?

As Milton Rokeach has pointed out in his recent book on value orientations, different types of societies place different priorities on a range of values. He argues, for example, that where Marxist societies chose equality for their standard, liberal capitalist societies, as in the U. S., opt by and large for individual freedom. Social democrats, or socialists, recognize both equality and freedom as their priority goals, while fascist states reject both.

In the case of Cuba, the question of whose goals constantly confronted me during a three-week visit in late 1970. After seemingly endless requests to visit Cuban schools--they were transmitted through a close friend, a patrón, who held an influential post in UNESCO--I was finally invited to attend a UNESCO conference on Adult Education at the Hotel Nacional in Havana. As I did not relish the thought of spending all my time in Cuba at a conference, I requested a two-week tour of rural educational programs, a request granted without hesitation. During conversations with Cuban peasants, workers, and teachers, a constant question re-occurred:

> Doctor--we understand that your country does not support our attempts to build a new society, a society free of exploitation and underdevelopment. But why does the U. S. so tenaciously fight our efforts to pull ourselves up out of poverty and inequality? We were the whorehouse of U. S. tourism, and now we are attempting to create a new morality, a selfless, dedicated new man. Is this not a desirable and praiseworthy thing?

Here the Cubans are by and large judging their efforts against the criterion of equality. And even the most critical must admit that Cuban society is far more egalitarian, that there is far greater access and outcome equality in Cuban society today than before 1959. (See Figure One, "Some Indicators of Social and Educational Change in Cuba.")

The U. S. critics, however, will tend to reject the criterion of equality and use the liberal capitalist standard of individual freedom. It is, perhaps, only fair to acknowledge that my bias tends towards the use of both criteria, and although this has meant no return trips to Cuba, it has hopefully allowed a reasonably objective assessment of the continuing--if narrowing--gap between utopia and reality in Cuban educational-change efforts.

In this paper, I would like to draw upon this work and examine some of the theoretical implications of the Cuban educational-reform model for other Latin American societies--and especially those such as Perú, where an elite "revolution from above" is unsuccessfully attempting to borrow reform goals, structures, and slogans from the Cuban Revolution, Latin America's first successful participatory revolution from below. I will then examine some accomplishments and continuing serious problems in recent attempts to move secondary education into rural areas and to involve students as a significant component of the rural labor force. This rural-education strategy seeks the dual objectives of ideological formation, as well as significant student labor contributions to agriculture. Here the

FIGURE ONE

SOME INDICATORS OF SOCIAL AND EDUCATIONAL CHANGE IN CUBA

Indicator	Before 1959	1976
Population	6, 812, 000	9, 500, 000 (est.)
National illiteracy rate	23%	3%
Illiteracy in Camaguey Province	35%	4%
Enrollment of 6-12 year-olds in Primary schools	55%	100%
University enrollment	16, 000	83, 000
No. of private universities	4	0
Enrollment in adult education	4, 200	600, 000
Rural health poly-clinics	0	336
Medical schools	2	4
New doctors annually	300	1, 350
Nurses' training schools	1	34
Nurses graduated annually	80	500
Annual public-health expenditure	20 million pesos	400 million pesos
Infant mortality	over 60 per 1, 000	28. 9 per 1, 000
Life expectancy	55	70
Teacher unemployment	10, 000	teacher shortage
Total school enrollment	811, 000	3, 051, 000
Total scholarships (all types)	1, 004	620, 000
Textbook production	nil	35, 000, 000
Books per capita	0. 6	4. 1
Average educational level	second grade	fifth grade
Total educational budget	79, 000, 000 pesos	874, 000, 000 pesos
Workers enrolled in universities as a percentage of total enrollment	nil	50%
Primary-school graduates	29, 800	190, 000
Specialized research centers	nil	150
Percent of budget to adult education	2. 5%	36%
Working population unemployed	16%	labor shortage

Sources: UNESCO and Cuban Government publications.

expectation is that the burgeoning educational sector will be able to make substantial contributions to its own skyrocketing budget. Indeed, if all goes as planned, the vastly expanded and reformed educational system will, in large measure, pay its own way through the universal application of a work-study strategy. Even with only a partial implementation of this plan, Cuban educational reforms have become an exemplar of planned change seeking greater equity and efficiency. In both the formal school system and non-formal educational sector, Cuban educational programs during the past decade and a half have had impressive success, while far less ambitious reform efforts have faltered in other Latin American countries. A comparative assessment tells us why.

CUBAN REFORMS IN A LATIN AMERICAN PERSPECTIVE

If one takes an overview of Latin American educational systems during the past decade or so, a number of continuing problems become clearly apparent. For one, the educational sector, with explosive expansion to meet growing social demand for schooling, has consumed a staggering percentage of national budgets, a situation that has frequently led to the neglect of related social sectors such as public health, housing, and the like.

A second critical problem is the extremely low retention power, or internal efficiency, of Latin American educational systems. That is to say, most students fail to complete primary schooling. In 1957, for example, 41 percent of all primary-school enrollment in Latin American countries was concentrated in the first grade and seven percent in the highest primary grade: in 1965 (with the exception of Cuba), the percentages were 38 percent and eight percent, with only slight improvement today. This situation means that those few who graduate are produced at enormous cost, while the vast majority of students learn only the rudiments of literacy and numeracy.

The third problem concerns what is learned in school, i.e., how school-acquired and/or reinforced behaviors, attitudes, and skills link up with national development plans and aspirations. Here the educational reformers face, perhaps, the most enduring and tenacious problem of all: how can schools that have traditionally functioned--and with rather notable success--essentially as instruments for acculturation and the legitimization of Hispanic cultural dominance be re-oriented to serve the difficult processes of technological modernization and societal development?

Beginning in the early 1960's, the U. S., through the AID, the Peace Corps, the military, and other technical-assistance missions, sought to encourage and support the re-orientation of Latin American educational systems. International organizations such as UNESCO and ILO, the World Bank, and large foundations (Ford, Rockefeller, et al), along with numerous U. S. universities, addressed the same set of problems. These efforts worked variously to provide educational facilities which would reduce unit costs and make schooling more internally efficient by reducing waste and increasing completion rates, and perhaps most importantly, to relate reformed educational programs to ongoing and proposed economic-development plans. In education as in other social sectors, models and standards from the U. S. and Western Europe--i.e., from advanced urban and technological societies--were naively superimposed on rigidly stratified and largely rural Latin American societies with entrenched educational traditions focused on the granting of academic professional titles and the cultural symbols considered appropriate for elites already largely determined by family membership and access to "high-culture" institutions.

Results of this multi-national educational intervention in Latin American development have, to say the least, not been as expected. Rather than the hoped-for incremental improvements in production, consumption, and participation, we have seen the rise to power of military dictatorships in what

was a continent where at least quasi-democratic states predominated. The consequences of this development for educational reform have, in most cases, been increased inequity in educational opportunity, and, accordingly, diminished life chances for the vast majority of children.

In sum, attempts at incremental social reform in Latin America have failed because privileged elites have been unwilling to accept even modest reform and a corresponding minimal redistribution of resources in favor of the grossly deprived and impoverished majority. The military regimes that have come to power to halt any further moves toward redistribution have viewed schooling essentially as a mechanism for social control and the maintenance and legitimization of inequality and special privilege.

Against this background of failure, we might now examine how the case of Cuba is a notable exception. Here, revolutionary efforts to create greater equality in economic and social relations during roughly the same years have required corresponding efforts to revolutionize education and turn it from an orientation on providing education as private capital to one seeking the creation of a "new man": i.e., youth who will be selfless producers and fighters in the struggle for socialist reconstruction and economic development.

Let us first briefly examine how Cuban educational-reform attempts have taken place, and how they have been related to social, economic, and political-change efforts in the society at large. The basic question addressed might be stated as : Under what conditions can Latin American educational systems, with their still-powerful colonial functions, be remade into mechanisms to support national goals of greater social equity, economic development, and the elimination of dependency? My intent here is not to hold up Cuba as an exemplary development model--the Cubans themselves

will no doubt carry out that task--but rather to indicate something of the highly political nature of education and the close correspondence between educational-change potentials and the dominant ideological and reward systems operating in any given society. I will examine in a general way how the Cuban educational-change strategy has, on the one hand, come to grips with basic obstacles to educational development, and on the other, sought to completely alter relationships within the educational complex, as well as educational contributions to other sectors seeking to advance social and economic development.

Critical Defects in Pre-Revolutionary Education

Given the near breakdown of Cuban society, the problems facing revolutionary educational reformers in 1959 appeared nearly insurmountable. Decades of political turmoil, graft, bureaucratic mismanagement, and the instability arising from the revolutionary war in the late 1950's all helped to produce one of Latin America's most inequitable and inefficient school systems. In most Latin American countries, the proportion of any school-age generation reaching each level of the school system slowly increases over the years. In contrast, the proportion of children receiving primary education in Cuba dropped markedly from the 1920's to the 1950's.

Perhaps the crucial deficiency of pre-revolutionary Cuban education lay in its orientation to professional training, and a near-total rejection of practical, work-oriented skills required for national development. Graduates of law, the humanities, and the arts comprised the largest group among the economically active technical and professional population; in the mid-1950's, for example, agriculture, the nation's primary economic sector, employed less than one percent of all professionals.

On taking power, Castro took pains to instruct all Cubans how inequities and inefficiencies in the educational system reflected the consequences of economic and cultural domination. His critique saw the

essential function of Cuban education up to 1959 as one of replicating in the schools the social relations of production. This view, in what Samuel Bowles has called the "Correspondence Principle," relates education and economy in any society. As the social relations of schooling reproduce the social relations of production in each age group, the class structure is, in large part, also reproduced from one generation to the next. And when the division of labor results in a highly stratified class structure dominated by foreign (largely U. S.) management, technical personnel, and ideological orientation as in pre-revolutionary Cuba, then the evidence indicates we may well expect to find corresponding underdevelopment of a nation's educational institutions.

This, of course, is not to say that a small number of poor urban children, and even fewer rural youth, did not use schooling as a means to higher social status. By far the vast majority, however, attended schools for no more than four or five years. This provided enough time for children to learn the rudiments of numeracy and literacy on the one hand, the stigma of their lower-class origins, and their failure to succeed on the other. By colonizing the majority of Cuban youth to accept individual responsibility for school failure, and to accept economic and political relationships that favored the few, Cuban education functioned essentially to perpetuate and legitimize an oppressive status quo.

Let us now examine how recent Cuban efforts to build a new egalitarian society to implant a radically altered cultural hegemony have called for parallel efforts to fundamentally alter the goals, programs, human relations, and outcomes of the educational system.

Priorities and Programs

When a group with radically different values comes to power in any society, they will attempt to implant their ideology or system of evaluative principles about the nature of reality. They will set new standards for social relations and bring these standards to bear on the programs of existing institutions. When possible, individuals who are for one reason or another unable or unwilling to accept the legitimacy of the new values and prescribed behaviors will seek to escape, as did many American Tories who fled to Canada after 1775, and many upper- and middle-class Cubans who fled to the U. S. after 1959.

During the first years of revolutionary social and economic reconstruction, the new government, accordingly, sought to equate the process of education with the process of revolution. Cuba would become, in Castro's words, "one big school," where radically altered socio-economic relations would be supported and reinforced by massive educational efforts to teach Cubans of all ages the behaviors and skills necessary to insure the survival of the new dominant ideology. Castro's commitment to education as the critical element in efforts to create new social values is well illustrated in his remarks that: "We will make revolution if we really win the battle of education," and "Education is the country's most important task after having made the revolution, for it will create the ideological framework for the new generation." Thus, successful attainment of a new educational policy became a critical factor in the task of securing a revolutionary new status quo dedicated to egalitarian values and the development and distribution of national resources.

To what extent have Cubans actually been able to change the educational system? What programs have been developed to address the dual problems of reducing the educational deficit inherited from Batista's dictatorship, and implanting the "new system of values?"

With regard to the first task, the government mobilized hundreds of thousands of teachers, students, and other urban dwellers during 1959 and in the early 1960's to provide schools for all children in rural areas, to mount a national literacy campaign in 1961 for all adult illiterates, and to provide adult-education follow-up courses for the newly literate. In 1961 alone, the government claimed a reduction of illiteracy among those over 14 years of age from about 21 percent to only 3.9 percent. Through this vast mobilization of volunteers, over one million Cubans of all ages participated either as teachers or new learners in a revolutionary educational experience of several months' duration. At the same time, elementary-school enrollments shot up and the percentage of school-age youth enrolled in educational programs rose from about 58 percent to over 98 percent. The non-formal, or out-of-school, educational sector in like manner grew at an impressive pace with the creation of educational programs on the job, in the community, and in the large mass organizations representing small farmers, workers, youth, women, and other special-interest groups.

Regardless of the exact figure of new literates, the literacy campaign through mass mobilization and a massive input of resources accomplished in a period of less than one year what no other Latin American society has been able to do: i.e., carry out a successful national frontal attack on chronic, widespread illiteracy. The largely rural campaign cost a good deal in time lost from work and school by the 271,000 volunteer teachers, and planning and administration often foundered. But more than literacy for 707,212 of Cuba's 985,000 illiterates resulted. Many young Cubans who went to the countryside as teachers experienced for the first time the grim living conditions, the poverty, and the lack of opportunity in Cuba's rural areas. With this experience, the campaign's slogan of "The People Should Teach the People" became a reality as Cubans from all classes and areas mixed as never before and began to understand themselves better, as well as to see in real life the revolution's causes and the legitimacy of its ambitious goals to eliminate exploitations and structured inequality.

After 1966, educational priorities shifted from the problems of equal access to educational opportunities and programs to a more focused concern on "correct" ideological formation. Drawing heavily on the example and writings of Ernesto (Che) Guevara, schools received the charge to mold "el hombre nuevo," a new socialist man whose deeds and accomplishments would make possible Castro's utopian call for a Marxist society in Cuba. Starting from the belief that human nature is not fixed but largely a product of social relations, Cuban educators now seek to form youth dedicated to self-sacrifice, to struggle against injustice and exploitation, to creative productivity, and to defense of the revolution and present regime. Efforts seeking these ends are, for example, currently underway in a plan to move most secondary schooling from cities into coeducational rural boarding schools where academic study is combined with productive labor in agriculture. Students from age 12 to 17 are, accordingly, not only removed from the ego-enhancing temptations of city life and family, but placed in quasi-military settings, in new living and learning contexts where the ideological formation and individual behavior can be closely observed and influenced with powerful new rewards and sanctions.

Because the rural education sector and the Schools in the Countryside development will play such a central role in Cuba's educational strategy for decades to come, and because of the highly innovative aspects of rural education with regard to the combination of pedagogy and productive labor, we should, perhaps,take a closer look. Why are the Cubans undertaking this massive and expensive educational offensive in rural areas? What evidence is there, if any, that these new rural, coeducational boarding schools will prove able to produce secondary-school graduates for technical and leadership cadres, graduates who will indeed be the "new man" ready "to go where the revolution needs them," and even more demanding, be able "to contemplate abudnance without egoism?"

As we have noted, Cuban efforts since 1959 to break out of underdevelopment, to create the socialist "new man," and to achieve a more egalitarian society have, in marked contrast to all pre-revolutionary governments, all placed a high priority on rural education. With the triumph of the guerrillas, rural-education programs for youths and adults, both in the formal school and in the non-formal, out-of-school educational sector, experienced a radical transformation. Under the Batista dictatorship, the scant, impoverished, and generally neglected rural educational programs clearly indicated the investment priorities of urban commercial and political elites and their power and dominance over workers. As in most of Latin America yet today, the peasantry, and/or the rural working class, was integrated into national society in a way that largely denied them access to institutions and knowledge essential for economic advancement and social mobility.

As a mass political and social movement seeking to implant a new egalitarian value system and create a new more just society, the Cuban revolution has placed a high priority on eradicating inequalities and giving all Cubans opportunities to participate in the institutions and processes of national life. The rural population, more than any other group, has received special attention in this regard. Castro, on taking power, began a number of "crash" assistance programs to redistribute land, to organize, and to educate the formerly isolated and exploited rural agricultural population and to link them to national society and the on-going process of attempted socio-cultural change.

A two-stage land reform in 1960 and 1963 turned 35 to 40 percent of all land over to small tenant farmers, and rent disappeared as a means of pumping out the surplus product of peasants for the benefit of urban elites. The second land reform in 1963 eliminated all private holdings over 165 acres and put vast numbers of unemployed laborers to work on idle land previously held as reserve by the large foreign corporations.

In a number of ways, the agricultural population has been singled out for preferential treatment by the revolution. They are now assured employment throughout the year; schools, hospitals, and other services are available, in many cases for the first time, and they are free to all. They receive the same ration of food and clothing as the urban population and are usually able to supplement it with their own production. They participate in mass organizations such as trade unions, the Communist Party, Committees for the Defense of the Revolution, Peoples' Courts, the People's Militia, and the like. In sum, their lives have been radically altered for the better, and they are, for the most part, fervent supporters of the Revolutions.

Most favored of groups in the rural sector, indeed of all Cubans, have been the ex-tenant peasant farmers. They comprise some 40 percent of the agricultural population and work about 30 percent of the agricultural area, largely as tobacco farmers in Piñar del Río. With average holdings of 50 acres, this peasant sector produces only for the government and in exchange receives fixed prices, credit, and labor supplies. Laborers supplied by nearby state farms work on an equal footing with peasant owners, and everyone is addressed as compañero, or comrade.

As rural youth are caught up in the Cuban revolution through formal and non-formal educational activities and through participation in voluntary organizations, and as the income gap between agricultural workers and peasant farmers narrows, the landowning peasant class is rapidly contracting. For largely ideological reasons, increasing numbers of peasant children are declining to succeed their fathers: thus, as members of the old generation raised in the pre-revolutionary society die, their farms are now, for the most part, acquired by the government and added to state farms. This change presents significant evidence of how the new value system emphasizing collectivistic over individualistic behaviors has become woven into the very fabric of life, culture, and politics in the Cuban countryside.

Plans to Revolutionize Rural Education

Cuban efforts to make six years of primary schooling available to all rural children have been impressively successful. Even the most isolated villages accessible only by mule path have their schools and teachers in residence.

The data clearly indicate that although the rural population as a percent of the total population continues to decline, the relative percentages of schools, teachers, and students in rural primary education have significantly increased after 1959. In three years between 1959 and 1961, the total number of primary schools increased 61 percent, while the increase for rural schools was almost 100 percent. During this period urban schools actually decreased in number from 2,678 in 1959 to 2,026 in 1960 as many middle-class families and school teachers fled the revolution. At the same time, many previously unemployed primary teachers and a vast army of volunteers drew upon urban educational resources to open and staff new schools in backward rural areas that had previously never seen a school teacher. By the late 1960's the revolutionary goal to draw the campesinos into the nation and the revolution had been largely accomplished.

Data on the numbers of teachers and enrollments in rural primary schools also indicate the enormous quantitative explosion that took place during the revolution's first years. Clearly, rural education has been powerfully favored, frequently at the expense of the urban educational sector, in the area of educational inputs. The results of this revolutionary shift of national education priorities to favor the rural sector might very roughly be assessed in terms of attempts to put all children in school and to secure fundamental behavioral changes. If we examine the first goal, it is apparent that the internal efficiency of rural primary schooling, and urban as well, has until rather recently been low and little different from other poor but non-revolutionary Latin American countries. Cuba has been different primarily because the schools and teachers have, since the 1960's, been available to all; the majority of students, nevertheless, until the mid-1970's continued to drop out at an early age to work or, as Castro has claimed, simply to loaf.

In 1971, for example, over 300,000 youth in the six-to-16 age bracket had left school, while within the educational system, between the first and sixth grades, over 620,000 school children had fallen behind one or more grades, and only some 40 percent of those who begin primary grade one completed grade six. The corresponding number of "overage" students for the seventh to the tenth grades was some 77,000, while in the eleventh, twelfth, and thirteenth grades the number was still relatively high, 4,600. These students have been viewed as a cause for grave concern in a society that is seeking to raise traditionally low rural educational achievement to national norms. The enormity of this goal is indicated in the continuation of an exceeding steep-sided educational pyramid. Although the base has been expanded, i.e., some 99.8 percent of all children at least enroll in primary education if only for a short period, the percentages of the age cohort enrolling in intermediate-level courses in 1972 was only 12.6 percent, and in higher education 1.6 percent.

Perhaps the second most critical goal of education in rural settings after schooling of rural youth is the attempt to teach urban youth in rural educational programs seeking ideological development and agricultural production. Although evaluation of results in this regard is even more difficult, a number of recent official comments on these programs provide some qualitative insight into their aims, operation, and outcomes. At the First National Conference on Education and Culture in 1971, for example, efforts in the compulsory Schools to the Countryside Program--where urban secondary-school students work in agriculture for some 45 days a year--and in voluntary work in agricultural production were indirectly criticized as follows: (1) the goals of the activity are not clear, and the encampments consequently lack organization directed at specific outcomes; (2) the time lost from formal-school programs in urban settings has serious effects on the academic programs of students preparing for higher education; (3) urban students make few meaningful contacts with

campesinos and largely maintain attitudes of urban superiority vis-a-vis their rural countrymen; (4) the productivity of students is generally low, leadership is lacking in the camps, while the activity has often been poorly integrated into the formal-school program and viewed with suspicion by many secondary-school teachers. The program has recently been cut back to five weeks, and the entire effort to carry urban schools to the countryside for short encampments will be replaced during the next few years by a bold new strategy to locate all general secondary programs, beginning at the junior-high-school level, in rural areas and link them with agricultural production.

Prime Minister Castro's speech to the Second National Congress of the Young Communist League in 1972 discussed in detail current failings of the formal school system, presented a plan to build a massive new secondary system of boarding schools in rural areas, and gave the League a charge to implement the task in concert with "the mass organizations, the labor movement, the Party, and all the people."

Because Castro's critique and the global solution he proposed will very likely shape the direction and content of Cuban rural education for the foreseeable future, it is important to ascertain his view of rural education today, as well as its potential for revolutionary development. His blistering criticisms of the shortcomings of Cuba's educational system, and especially that part in the rural sector, confirmed the data on low efficiency. They also indicated that problems in creating the new socialist man through education had recently grown more critical and were not viewed as threatening to the very survival of the revolutionary state. During the first years of the revolution, problems of illiteracy and lack of educational facilities were rightly viewed as part of Cuba's colonial heritage. They were attacked as intolerable social ills and largely eradicated. By mobilizing the masses and changing spending priorities, the revolution's first educational battles were conspicuously won. And if the outcomes

were costly in terms of manpower utilization, production losses, and toher efficiency criteria, they were imperative at almost any cost if one used ideological and moral criteria. But as vastly increased numbers of youths entered schools and educational costs skyrocketed, problems of efficiency in the educational system, and of its relevance to national production goals have greatly intensified. Thus, some 13 years after Castro's victory, several basic educational problems were critically assessed at the Congress as indicators of educational-system malfunctions--if not outright failures.

The first major problem was that over half of the children in primary schools, some 1,759,167 in 1972, were overage grade repeaters. There were, for example, over 400,000 students in the first grade, over "double the amount that should be registered if the system were functioning as it should, if the graduation rate were what it should be, and if the students entered school at the required age." In all, some 720,000 primary students were two or more years behind their grade level. Of these about 130,000 were in the first grade and 115,000 in the second grade. With barely 60 percent passing, the fourth grade had the greatest number of repeaters.

The problem of school leavers, the majority found in rural schools, was viewed as equally critical. Castro noted that the following percentages of age cohorts attend school: Using the data from the 1965-66 school year, which would seem to indicate that the problem had changed little today, Castro explained that 387,000 students registered for the first grade, and some 124,000 in the sixth grade; but that only 82,300, or 21.2 percent, graduated. Moreover, in comparison to the national rate of 21.2 percent, graduation rates for urban schools were 34.2 percent. In rural elementary schools, they were only 11.7 percent.

The educational pyramid, he complained, grows even steeper at the junior-high-school level where, in the 1966-67 school year, 59,300 students enrolled in seventh grade, but only 17,213 reached tenth grade; and of these, only 8,073 passed that grade. This figure represents a 13.6 percent graduation rate, a figure in large part understandable in light of Cuba's underdevelopment, rurality, and lack of trained teachers, but nevertheless totally unacceptable in a country desperately short of technicians. Consequences of low internal efficiency viewed as most serious were the nearly one-fourth million youth who neither work nor study, and the low enrollment in technical-education programs. Of the 23,960 students in these crucial training programs, in 1971 16,203 studied industrial subjects, while only 7,757 studied agriculture. At the university level, as well, the number of students selecting agricultural sciences was declining.

For a poor agricultural country seeking to mechanize the agro-industrial sector, these figures indicated a serious lack of student interest in technical studies. Castro lamented that, "There are few young people who are thinking about getting agricultural or industrial training.... There are agricultural and industrial technological institutes that are empty." In marked contrast,

> ...there are 24,033 people studying languages. That's fine. We should be glad that so many people realize the importance of studying foreign languages. But who is going to produce the material goods in the future, and how? How will we be able to introduce technology in agriculture and industry?

The Prime Minister also criticized Cuban education for its continued over-emphasis on theory and intellectual preparation, for the poor study habits of students, and for their resistance to work and study programs in rural areas. In this regard, he acknowledged the problem of motivation faced by all rural educators:

> Who wants to go work in the countryside? The countryside is rough, it's poor. Moreover that rough, poor countryside doesn't change from one year to the next, and we'll be having a rough, poor countryside for years to come. All these factors have a bearing on each other and give rise to certain attitudes of evasion.

Even more critical was the ineffectiveness of educational and rural service experiences such as the Schools to the Countryside and voluntary labor programs, seeking to internalize the new value system. Castro frankly stated that, "We still don't have the new man, and we no longer have the old one." He saw Cuba as living through a difficult transitional period between the old plantation system under capitalism and the new socialist society. He put it well:

> The new man doesn't exist yet...The irresponsible fellow that destroys equipment, who doesn't work or study is not yet a new man. The old man who lived under capitalism knew how hard it could be to find a job. He learned how to handle a bulldozer or a centrifuge in a sugar mill by working ten years as an apprentice. He learned about discipline because life, the factory, and hunger imposed it upon him. When you arrive at a sugar mill today, you do not see this discipline. The discipline of the old man is gone, and we don't have the new man with the corresponding discipline--self-discipline and awareness of his obligations and tasks.

Interestingly, Castro views non-formel education programs in the army during compulsory military service in the "Voluntary" Centennial Youth Column as the

> two key factors that have instilled discipline...in the mass of males who could not be won over and forged by the formal educational system...who didn't study or work and hadn't learned a skill or a trade.

He also observed that because girls have not participated in either of these activities, they have even fewer opportunities to

> learn a skill, to develop work habits, and elements of discipline....This is a serious problem, and even more so in a country where there are old traditions that women shouldn't work.

Near-empty agricultural and industrial-technological institutes and failure to produce the much-vaunted "new man" led Castro to warn that the danger signals have been put out for education. He underscored that, "There is not the slightest doubt that all things point to the need for effecting a true educational revolution." His strategy for radical reformation of the educational system has been based on a "full-scale application of the principle of combining work and study. This is now being done at all levels of education: elementary school, junior- and senior-high school, and the university." This new revolutionary offensive began in 1972 first in Camaguey, Cuba's most rural and backward province, under the leadership of the Young Communist League and in collaboration with the closely allied Ministry of Education and the ministries of the armed forces and interior.

Primary schools where fourth-, fifth-, and sixth-grade students work two hours a day in agricultural production exist now in many rural localities, and Castro is enthusiastic about their universal application. In reference to the primary school at Meneses, one of the first examples, Castro claims that students now supply "the fruits of their labor" not only to meet school-feeding needs, but also to the workers' dining rooms. "And it wouldn't be a surprise if they could supply the town itself with some of the things they have grown. And all with working only two hours a day." Counterpart urban schools combining work and study are yet to be developed because of difficulties finding truly useful activity for fourth to sixth graders "at the industrial level." Rather, junior-high schools have been the first target institution.

Some 226 new rural secondary schools in the countryside have been constructed since 1970 using standardized pre-fabricated concrete construction. With 500 boys and girls boarded at each school, some 133,000 youth are presently enrolled in these junior-high school programs and working three

to four hours a day in agricultural production. School construction is organized on a brigade model. Over 80 construction brigades are presently at work on this program using labor inputs from the construction sector, the army, from volunteer workers' "minibrigades," and others. Increased output of cement and steel rods have permitted the implementation of a second stage of school construction to locate all senior-high schools, normal schools, and technological institutes as well, either in rural areas or close to a factory. Cuba's 150 sugar mills are, for example, each to have a polytechnic school, a plan that would involve 75,000 youth in the production of sugar while learning agro-industrial skills.

Special primary schools in the countryside are also viewed as the solution to the problem of "backward students in our schools." Thirteen- to 15-year-old grade repeaters will be isolated in these institutions and offered remedial studies and productive labor experiences "just like the ones in junior-high schools." Overaged 16- and 17-year-olds in the seventh- and eighth-grade programs will be send to the new polytechnic schools. "Thus," notes Castro, "our schools will be divided according to educational level and age level." This proposal to create a dual system of remedial and regular schools would appear to be a surprisingly elitist solution for what is undoubtedly an egalitarian society. It indicates the surprising degree to which Cuban schooling continues to practice traditional concepts of academic selection, grade promotion, and individualistic competition.

The cost of creating this vast new system of boarding schools in rural settings has not been made public. One might observe, however, that Cuba's educational system in 1976 cost somewhere in the vicinity of 874 million pesos. Even if the cost of school expansion and relocation increased to the 1,000 million mark, to quote Castro, the value of youth labor "should easily pass the 1,000 million mark." The expectations are clear: students will pay for the new schools with their labor and in the process internalize revolutionary norms of sacrifice, solidarity, and service.

The fact that Cuban youth do not all equally share in the tasks of the revolution is viewed as a matter of great potential danger. Some youth study, for example, and are exempt from military service, in which only about one-third of all 16- and 17-year-olds serve three years. Others volunteer for work in agriculture or construction, others don't. Current plans call for an extension of compulsory schooling from 16 to 18 years of age so that all Cuban youth will be required to work and study in one or another type of the new schools in the countryside. In this way, Castro claims, "we'll get a more mature, better trained, and more knowledgeable young person."

The need for 16- to 18-year-old youths in rural high schools, especially in the sparsely populated cane-producing province of Camaguey, might also be interpreted as a necessary step to insure semi-skilled manpower for sugar production. Pre-revolutionary Cuba had a dominant plantation sector that demanded large numbers of seasonal workers. During the long eight-month "dead season," cane cutters barely survived either through small-plot subsistence farming or through supplemental occupations outside the cane industry. Whatever the alternative, it had to be compatible with the need for workers to be available to the sugar producers for the next harvest season.

With the social revolution and a basic change in the ecology of sugar-cane production in Cuba, an alternative structural response has developed, i.e., non-sugar workers are made temporarily available for harvest-season labor, while mechanization remains the long-term goal. In the interim, volunteers from urban centers, farm labor, the military, foreign volunteers as well as forced labor have all been used in varying degrees. It will appear now, however, that future plans will increasingly call for rural secondary schools to provide year after year a significant labor contribution to the cane-harvest season.

Rural education, in sum, is increasingly viewed as the basic strategy for accomplishing key revolutionary objectives in the areas of economic production, ideological formation, and educational preparation. The need to involve all youth in work-study programs, functionally linked with production, has been established as the number-one priority of the revolution in the years to come. Previous revolutionary offensives in Cuba have sought to mobilize the masses and involve them in efforts to achieve moral victories--often at great material cost. The rural-education offensive now underway is no exception to this pattern. It is an audacious, frontal attack on the still-traditional formal-school system and continuing attitudes of a belief that the new socialist man with his attributes of dedication to collective rather than individual interests will be best formed in rural settings where youth can supposedly be removed from ego-enhancing family and urban influences.

Evaluation

In Cuba after 1959, powerful pressures have been brought to bear on every individual to develop a revolutionary awareness, to participate in mass organizations seeking individual and social change, and to contribute to national economic development by learning new needed skills and with volunteer labor. As the chosen instrument to accomplish these ends, education has been vastly expanded and re-oriented both in the formal-school system and in the out-of-school educational sector.

In the formal-school system, elimination of private schools after 1961, vastly increased budgetary inputs, along with community pressure and vigorous enforcement of extended attendance requirements, have all contributed to skyrocketing public-school enrollment figures. Even in Cuba's most remote areas, i.e., the coastal swamps and eastern highlands, all children now have opportunities to attend local primary schools. But as schools remain rigidly test-oriented and authoritarian, wastage and

grade-repeating rates, although dropping, are still high. Cuban educators today justify the continuing highly selective nature of their school system on the need to build technical and leadership cadres capable of defending the revolution and maintaining its ideological purity.

Over a half-million state fellowships, many for secondary-school study in approved concentrations, have indeed opened opportunities for many poor rural and urban students to complete their schooling and bring sorely needed technical skills into agriculture, industry, construction, and other sectors. Universities seek the dual priorities of ideological commitment and technological expertise. The law faculties have decreased and "careerism" is viewed as selfish and counter-revolutionary behavior. Rather, students are taught that new knowledge and skills must be used to advance social reform and development and not be viewed--as in the old days--as private capital to be accumulated for individual or family gains of status and consumption.

In sum, 17 years of revolutionary change in Cuban society have brought vast revisions in the values, programs, and outcomes of the school system. And as the revolution consolidates its gains, government expectations are that the new social and economic relations will be even more powerfully reflected in and continued through the socialization process in all aspects of daily life, and especially in schools. Although these new relationships are clearly evident in all school programs and settings, formal schools continue to be highly selective authoritarian and ego-enhancing institutions, even while using new standards for socialistic "good behavior."

For youth and adults who, for various reasons, are viewed as non-integrados, or lacking integration in the revolutionary process, as well as those selected out of formal schools, Cuban educational authorities have set up a large non-formal, or parallel, educational sector enrolling nearly 400,000 students for largely on-the-job technical and indoctrination

courses in the factories and fields, in work camps, in community centers, and in the mass organizations. These programs are often carried out with participation of the military and basically seek the same dual objectives as formal schools, but in more-disciplined and work-related settings. As the enormous educational deficit inherited from the previous regime has been eradicated with the building of a socialist nationwide learning system, educational policy in recent years has increasingly turned to the nagging problems of economic development. Attempts to raise production and to have such efforts viewed as the next revolutionary phase require that educational programs place greater emphasis on learning technical skills. If this shift from moral to technical priorities continues, it will be a powerful indicator of the degree to which Cuban authorities believe that the Cuban revolutionary ideology has been effectively implanted in new behaviors, in new norms, and in new social relations. For when revolutions succeed or achieve a new stage of equilibrium, routinization, and conservation, educational priorities also shift from learning revolutionary morality and the culture of the utopian goal to learning the new techniques used in maintaining that new culture.

Conclusions

José Martí, Cuba's poet-revolutionary, long ago set the direction for educational change in his small Caribbean country with the exhortation that: "One should learn in school to control the forces one has to grapple with in life. The word 'school' should be replaced by 'workshop.'" With a new national-development strategy based on the concepts of equality, participation and productivity, revolutionary Cuba has, for the first time in any Latin American country, created a social context where educational-reform aspirations, work opportunities, and national-development goals have been brought into a considerable degree of harmony.

Whether other Latin American countries will be able to draw upon this experience is, to say the least, highly problematic. An unusual combination of circumstances not likely to happen again facilitated Cuba's social revolution. A radically altered value system has been developed and put into practice during the past decade with corresponding changes in individual behavior, social relations, and the operative system of rewards and sanctions.

When political groups seeking to pattern social and educational change on the Cuban model have failed to take complete power, as in Chile, Bolivia, or Uruguay, externally supported repression has soon followed. Nor, on the other hand, is it sufficient for new elites, as in Perú, to dominate and intend to selectively adapt revolutionary educational programs. Recent Peruvian efforts to copy Cuban educational-reform programs and approaches have, for example, largely failed because Peruvian schools cannot be radically changed within Perú's relatively static social situation characterized by lack of participation and gross structured inequality. In Cuba, behaviors associated with the "new man" receive both moral and material rewards in the school, in the work place, and in the community. In Perú, however, exhortations for self-sacrifice and service to the national community pronounced in the classroom or workshop are not reinforced by the reward system operating in the streets and the schools. In Cuba, young volunteers are treated as heroes: in Perú, they are most often characterized as "tontos útiles," or useful fools.

Thus, Perú's attempt to create a "new Peruvian man" through selectively drawing on Cuban educational-change examples for school reform, but in a largely unreformed class society, is unlikely to meet the military junta's utopian expectations. To the extent that the "Correspondence Principle" is valid, formal schools can never serve as centers for the dissemination

of radical change into the larger society. Quite the contrary, for as the Cuban model demonstrates, only when a new value system has come to power will schools undergo rapid and profound change so as to reflect altered priorities and social relations.